

ASSIGNMENT-3

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QUESTION:

Write python code for blinking LED and traffic light for Raspberry pi.

PYTHON CODE FOR BLINKING LED:

```
import RPI.GPIO as GPIO
from time import sleep

GPIO.setwarnings(False)
GPIO.setmode(GPIO.BOARD)
GPIO.setup(7, GPIO.OUT, initial=GPIO.LOW)

while True:
    GPIO.output(7, GPIO.HIGH)
    print("LED on")
    sleep(1)
    GPIO.output(7, GPIO.LOW)
    print("LED off")
    sleep(1)
```

PYTHON CODE FOR TRAFFIC LIGHT:

```
import RPI.GPIO as GPIO
import time
import signal
import sys

GPIO.setmode(GPIO.BCM)
GPIO.setup(9, GPIO.OUT)
GPIO.setup(10, GPIO.OUT)
```

```
GPIO.setup(11, GPIO.OUT)

def allLightsOff(signal, frame):
    GPIO.output(9, False)
    GPIO.output(10, False)
    GPIO.output(11, False)
    GPIO.cleanup()
    sys.exit(0)
signal.signal(signal.SIGINT, allLightsOff)

while True:
    # Red
    GPIO.output(9, True)
    time.sleep(3)

    # Green
    GPIO.output(9, False)
    GPIO.output(10, False)
    GPIO.output(11, True)
    time.sleep(5)

    # Amber
    GPIO.output(11, False)
    GPIO.output(10, True)
    time.sleep(2)

# Amber off (red comes on at top of loop)
GPIO.output(10, False)GPIO.output(10, False)
GPIO.output(11, False)
GPIO.cleanup()
sys.exit(0)
```